

REMARKS

The Official Action mailed May 6, 2008, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to September 6, 2008. Also, filed concurrently herewith is a *Request for Continued Examination*. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on April 2, 2004; June 30, 2004; October 13, 2004; January 10, 2005; January 27, 2005; March 3, 2005; March 15, 2005; May 17, 2005; October 25, 2005; December 8, 2005; April 26, 2006; September 18, 2006; June 12, 2007; and June 14, 2007.

However, the Applicant has not received acknowledgment of the Information Disclosure Statement filed on January 11, 2008 (received by OIPE January 15, 2008). The above-referenced Information Disclosure Statement appears in the Image File Wrapper. The Applicant respectfully requests that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of the above-referenced Information Disclosure Statement.

A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 48, 52, 56, 61-63 and 66-71 are pending in the present application, of which claims 48, 52 and 56 are independent. Claims 48, 52, 56, 66 and 67 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 4 of the Official Action rejects claims 48, 52, 56, 61 and 70 as obvious based on the combination of U.S. Patent No. 3,657,613 to Brody and U.S. Patent No. 5,798,744 to Tanaka. The Applicant respectfully submits that a *prima facie* case of

obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 48, 52 and 56 have been amended to recite a pair of flexible insulating substrates, which is supported in the present specification, for example, by the substrates 301 and 302 (Figure 3). For the reasons provided below, Brody and Tanaka, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

Paragraph 4 of the Official Action asserts that Brody discloses "a flexible substrate (112)" (page 2, Paper No. 20080411). That is, the Official Action appears to be relying on the flexible metal substrate 112 of Brody to allegedly teach the flexible substrates of the present claims. However, as noted above, the claims have been amended to recite a pair of flexible insulating substrates. The Applicant respectfully

submits that the flexible metal substrate 112 of Brody is not a flexible insulating substrate, as presently claimed.

Tanaka does not cure the deficiencies in Brody. Tanaka appears to disclose a pair of glass substrates, which are not flexible. See, for example, Tanaka at column 1, lines 41-47, and column 5, lines 64-65. Accordingly, even if one of ordinary skill in the art at the time of the present invention had a reason to combine the references, Brody and Tanaka, either alone or in combination, do not teach or suggest a pair of flexible insulating substrates. Since Brody and Tanaka do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

Furthermore, there is no proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Brody and Tanaka or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be used together, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (emphasis in original). KSR International Co. v. Teleflex Inc., 550 U.S. \_\_, \_\_, 82 USPQ2d 1385, 1396 (2007). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

Also, “[W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” KSR Int’l Co. v. Teleflex Inc., 550 U.S. \_\_\_, 1, 12 (2007), citing United States v. Adams, 383 U.S. 39, 51-52 (1966).

Brody appears to teach away from using an insulating substrate as recited in the present claims. Specifically, Brody appears to be concerned with forming semiconductor devices on flexible metal substrates instead of “on rigid substrates of polished glass, sapphire and quartz bodies” (column 1, lines 14-24). The Official Action does not demonstrate why one of ordinary skill in the art at the time of the present invention would have had had a reason to contravene the stated purpose of Brody in order to use employ an insulating substrate. Therefore, the Applicant respectfully submits that it would not have been obvious to modify Brody with Tanaka’s pair of rigid, glass substrates to form the present invention.

Moreover, the assertion in the Official Action, i.e. that “[it] would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Brody to include a pair of substrates as disclosed in Tanaka because it aids in providing a liquid display device (For Example: See Abstract)” (page 3, Paper No. 20080411), does not adequately explain why one of ordinary skill in the art would have found it obvious to combine the references. The abstract of Tanaka discloses “a pair of substrates, at least one of which is transparent” and Tanaka further discloses one or both substrates as glass. See, for example, Tanaka at column 1, lines 41-47, and column 5, lines 64-65. As noted above, Brody teaches away from glass, sapphire or quartz substrates, instead promoting the preparation of a semiconductor device *in situ* on a flexible metal, such as nickel, aluminum, copper, tin, tantalum, silver and base alloys, mixtures and composites thereof. See, for example, Brody at column 1, lines 14-24 and lines 59-63.

Accordingly, one of ordinary skill in the art at the time of the present invention would have been disinclined to modify the disclosure of Brody with that of Tanaka. It

would therefore not have been obvious to one of ordinary skill in the art to modify the alleged semiconductor device of Brody with a pair of substrates allegedly disclosed in Tanaka.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Brody and Tanaka or to combine reference teachings to achieve the claimed invention.

In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

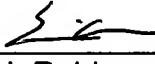
Paragraphs 5-11 of the Official Action reject dependent claims 62, 63, 66-69 and 71 as obvious based on the combination of Brody and Tanaka and one of the following: U.S. Patent No. 5,712,496 to Takahashi, U.S. Patent No. 5,231,297 to Nakayama, U.S. Patent no. 5,628,777 to Sato, JP 62-93974 to Tsunohashi, U.S. Patent No. 4,636,038 to Kitahara, U.S. Patent No. 5,427,961 to Takenouchi and JP 5-299653 to Hirota.

Please incorporate the arguments above with respect to the deficiencies in Brody and Tanaka. Takahashi, Nakayama, Sato, Tsunohashi, Kitahara, Takenouchi and Hirota do not cure the deficiencies in Brody and Tanaka. The Official Action relies on Takahashi, Nakayama, Sato, Tsunohashi, Kitahara, Takenouchi and Hirota to allegedly teach the features of the dependent claims. Specifically, the Official Action relies on Takahashi to allegedly teach microcrystalline silicon (page 7, Paper No. 20080411), on Nakayama to allegedly teach XeCl laser light (page 8, Id.), on Sato to allegedly teach a plastic substrate (pages 8-9, Id.), on Tsunohashi to allegedly teach a polyimide

substrate (page 9, Id.), on Kitahara to allegedly teach an acrylic resin (page 10, Id.), on Takenouchi to allegedly teach a particular composition of a resinous layer (pages 10-11, Id.), and on Hirota to allegedly teach a coplanar thin film transistor (page 11, Id.). However, Brody, Tanaka and one of Takahashi, Nakayama, Sato, Tsunohashi, Kitahara, Takenouchi and Hirota, either alone or in combination, do not teach or suggest the following features or that Brody and Tanaka should be modified to include a pair of flexible insulating substrates. Since Brody, Tanaka and one of Takahashi, Nakayama, Sato, Tsunohashi, Kitahara, Takenouchi and Hirota do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
Eric J. Robinson  
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.  
PMB 955  
21010 Southbank Street  
Potomac Falls, Virginia 20165  
(571) 434-6789